REMARKS

Applicant has received and reviewed the Final Office Action mailed by the Office (hereinafter, "Final Action"), and submits this response to the Final Action with a request for continued examination (RCE).

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1, 3-15, 17-31, 33-45, 46-50, and 52-54 are pending in the application, with claims 1, 9, 15, 23, 29, 31, 39, 45, and 54 being independent. Claims 2, 16, 32, 46, and 51 are canceled herein without prejudice to or disclaimer of the subject matter recited therein. Independent claims 1, 9, 15, 23, 29, 31, 39, 45, and 50 are amended herein. Dependent claims 13, 18, 24-28, 30, 36, 43 and 54 are amended to correct minor informalities. Support for the claim amendments and additions can be found in the original disclosure. Thus, no new matter has been added.

<u>**DRAWING OBJECTIONS**</u>

The drawings stand objected to under 37 CFR 1.83(a) for allegedly failing to show every feature of the invention specified in the claims. Specifically, the Office asserts that "the data structure of claims 29-30 must be shown or cancelled from the claims" (Office Action, page 2). The data structure recited in Applicant's claims 29-30 is a "product problem *description* data field, a product problem *cause* data field and a product problem *resolution* data field" (emphasis added). Applicant respectfully asserts that Fig. 1, reference character 114 clearly shows a Structured Solution Object containing a *Description*/Symptom(s), *Cause*(s) and *Resolution*(s) data fields organized in a

hierarchical structure. Accordingly, Applicant requests withdrawal of the drawing objection.

CLAIM OBJECTIONS

Claims 9, 23, 39, and 50 stand objected to because they allegedly fail to set forth any active steps involved in the method/process. The Office specifically objects to the claim limitation "allows" a user to use the "troubleshooting wizard." Claims 9, 23, 39, and 50 are amended herein to address the informalities noted in the Office Action by setting forth active steps. Accordingly, Applicant requests withdrawal of the claim objections.

§112 FIRST PARAGRAPH REJECTIONS

Claims 23-30 stand rejected under 35 U.S.C. §112, ¶ 1, as allegedly failing to comply with the written description requirement. Specifically, the Office alleges that "the specification does not mention tangible media" (Office Action, page 4). This rejection is respectfully traversed. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, Claims 23-30 are amended herein to recite "computer-readable storage medium comprising computer-executable instructions executable on a computing device". Accordingly, Applicant requests withdrawal of the §112, ¶ 1 rejections.

§112 SECOND PARAGRAPH REJECTIONS

Claims 9, 23, 39, and 50 stand rejected under 35 U.S.C. §112, as allegedly being indefinite for use of the term "leverage" in the claims. This rejection is respectfully traversed. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, claims 2, 23, 39, and 50 are amended herein to remove the term "leverage." Accordingly, applicant requests withdrawal of the §112, ¶ 2 rejections.

§101 REJECTIONS

Claims 23-30 and 50-54 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Specifically, the Office asserts that Applicant's claims 23-30 recite "carrier waves". Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, Applicant hereby amends Claims 23-30 to recite "computer-readable storage medium comprising computer-executable instructions executable on a computing device". Accordingly, Applicant respectfully requests withdrawal of the §101 rejection.

The Office also asserts that claims 50-54 recite software *per se*. Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, Applicant hereby amends independent claim 50 to recite "means for processing and; coupled to the processing means, means for storing computer-program instructions executable by the processing means..." Applicant asserts that the claims as amended recite a device with

tangible components, and comply with the statutory requirements of 35 U.S.C. §101. Support for this amendment is found at least in Fig. 5 of the application as originally filed. There is no new matter. Accordingly, Applicant respectfully requests withdrawal of the §101 rejections.

§102 REJECTIONS

Claims 29-30 and 50-54 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,711,585 (Copperman). Applicant respectfully traverses the rejection.

Applicant notes the requirements of MPEP §2131, which states that "to anticipate a claim, the reference must teach every element of the claim." This MPEP section further states that 'A claim is anticipated <u>only if each and every element as set forth in the claim is found</u>, either expressly or inherently described, in a single prior art reference.' *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Applicant amends **independent claim 29** . Applicant asserts that claim 29 is not anticipated by the evidence provided by the Office.

Independent claim 29, as presently presented, recites a computer-readable
storage medium comprising a structured answer object data
structure for use in product problem analysis and diagnosis,
the structured answer object data structure comprising:
a product problem description data field;
a product problem cause data field;
a product problem resolution data field; and
wherein the product problem description data field
is a parent node of the product problem cause data field,
and the product problem cause data field is a parent node of
the product problem resolution data field.

Copperman is directed to "systems and methods that facilitate the orderly storage of information and more particularly to a system and method for generating and utilizing knowledge containers for the orderly storage and retrieval of information" (Column 1, lines 14-18). Copperman describes an object (Knowledge Container) containing related data (terms/tags/links), where the tags chosen are based on terms identified in a search, and the links are chosen based on the taxonomy (Column 2, lines 17-24). Copperman describes searching documents organized in a taxonomy, wherein "The final result of executing these five stages is *a single ordered list of knowledge containers*" (Column 31 lines 38-41, emphasis added).

However, Copperman fails to disclose or suggest "a *product problem description* data field; a *product problem cause* data field; and a *product problem resolution* data field; wherein the product problem description data field is a *parent node* of the product problem cause data field, and the product problem cause data field is a *parent node* of the product problem resolution data field" as presently recited in Applicant's amended independent claim 29. The Office asserts that "marked content" is a "product problem description data field," "context tags" are "product problem cause data fields," and "typed links to other related knowledge containers" are "product problem resolution data field[s]" (Office Action, page 6). Applicant respectfully disagrees, and submits that while Copperman may describe data fields, there is no evidence to support a conclusion that Copperman's data fields contain the types of information as recited in Applicant's amended independent claim 29. Accordingly, every element of the claim has not been shown in Copperman, so there is no anticipation.

Additionally, Applicant respectfully submits that Copperman does not disclose arranging the data fields in a parent-child hierarchy as recited in Applicant's independent claim 29. As the grounds of rejection, the Office cites figure 2 from Copperman. For convenience, figure 2 from Copperman is included below:

A Knowledge Container

FIG. 2
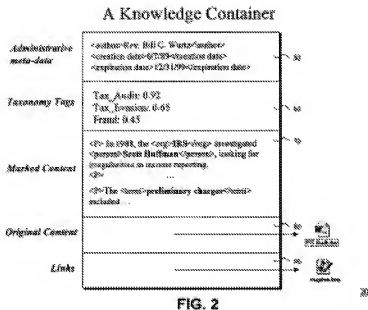
Applicant respectfully submits that there is no evidence that the Knowledge Container of Cooperman describes data fields arranged in a parent/child hierarchy as recited in Applicant's independent claim 29. One embodiment of a parent/child hierarchy is shown in Applicant's Fig. 2. This embodiment is included below for convenience:
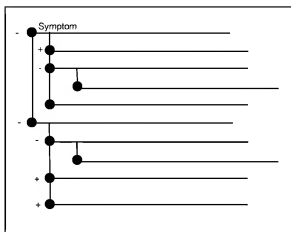
Fig. 2

As such, each and every element as set forth in Applicant's claim 29 cannot be found in Cooperman, there is no anticipation. Accordingly, Applicant respectfully requests withdrawal of the § 102 rejection.

Dependent claim 30 depends from independent claim 29 and is allowable by virtue of this dependency, as well as for additional features that it recites. Applicant also respectfully requests individual consideration of this dependent claim. Applicant respectfully requests withdrawal of the § 102 rejection of claim 30.

Without conceding the propriety of the rejection and in the interest of expediting allowance of the application **independent claim 50** is amended.

Independent claim 50 as presently presented, recites a computing device comprising:

> means for processing;
> means for storing computer-program instructions executable by the processor;
> means for communicating a search request to a server computing device, the means enabling a user to communicate a product problem description; and

responsive to receiving a response to the search request, means for presenting information from the response to the user, the information comprising hierarchically structured historic problem cause and resolution data, the historic problem cause and resolution data being associated with term(s) and/or phrase(s) related to the product problem description, wherein the product problem description is the parent of the corresponding historic problem cause data, and the historic problem cause data are parents of the corresponding historic problem resolution data.

Copperman fails to disclose or suggest the information comprising *hierarchically structured historic problem cause and resolution data*, the historic problem cause and resolution data being associated with term(s) and/or phrase(s) related to the product problem description, wherein the product problem description is the parent of the corresponding historic problem cause data, and the historic problem cause data are parents of the corresponding historic problem resolution data" (emphasis added) as currently recited in Applicant's independent claim 50. The Office asserts that "links to other related knowledge containers" describe "hierarchically structured historical product problem diagnosis data from structured answer data" as recited in Applicant's independent claim 50 (Office Action, page 7). Applicant respectfully disagrees, and submits that while knowledge containers may include links to other knowledge containers, Copperman explicitly results in a *"single ordered list of knowledge containers"* (Column 31, lines 38-41). Also, there is no evidence that Copperman describes knowledge containers linking to a "product problem cause" or a "product problem resolution" in a "hierarchy" as recited in Applicant's independent claim 50. Because of this limitation, Copperman does not show a way for a user to see what multiple causes and corresponding multiple resolutions exist for a problem.

As such, each and every element as set forth in Applicant's claim 50 cannot be found in Cooperman, there is no anticipation. Accordingly, Applicant respectfully requests for withdrawal of the §102 rejection.

Dependent claims 52-54 depend from independent claim 50 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of these dependent claims. Applicant respectfully requests withdrawal of the §102 rejection of claims 52-54.

§103 REJECTIONS

Claims 1-28 and 31-49 stand rejected under 35 U.S.C. §103(a) as being obvious over Copperman in view of U.S. Patent Publication No. 2005/0055321 (Fratkina). Applicant respectfully traverses the rejection. Nevertheless, without conceding the propriety of the rejection and in the interest of expediting allowance of the application, claims 1, 9, 15, 23, 31, 39 and 45 have been amended and are believed to be allowable.

Independent claim 1, as presently presented, recites, among other things, "converting, by a computing device, unstructured service requests comprising information that is a result of an end-user and product support engineer product communication processes, which is not based on information solely generated by a professional writer or vendor tasked with documenting a product, to one or more structured answer objects."

Copperman at least fails to teach or suggest "*converting*, by a computing device, *unstructured service requests* comprising information that is a result of an *end-user and product support engineer product communication processes*, which is not based on information solely generated by a professional writer or vendor tasked with documenting a product, to one or more structured answer objects" (emphasis added) as presently recited in Applicant's independent claim 1. Copperman does not describe converting information that is the result of "end-user and product support engineer product communication processes" because Copperman is directed towards searching documents that have been arranged into taxonomies, and thus has no knowledge of unstructured service requests between end users and product support engineers.

Applicant's independent claim 1 as presently presented also recites, among other things, "providing historic and hierarchically structured problem diagnosis data from the set to an end-user for product problem diagnosis, the problem diagnosis data comprising: a product problem description; a product problem cause that caused the described product problem; and a product problem resolution that resolves the described product problem by fixing the corresponding product problem cause."

As asserted above in the remarks on the §102 rejection, Copperman at least fails to teach or suggest "*providing* historic and *hierarchically structured problem diagnosis data* from the set *to an end-user* for product problem diagnosis, the problem diagnosis data comprising: a *product problem description*; a *product problem cause* that caused the described product problem; and a *product problem resolution* that resolves the described product problem by fixing the corresponding product problem cause," (emphasis added) as presently recited in Applicant's independent claim 1. One embodiment of a hierarchy

of problem description, causes, and resolutions is shown in Applicant's figure 2, included above for convenience.

As discussed above with respect to Applicant's independent claim 50, Copperman does not describe "the information comprising hierarchically structured historic problem cause and resolution data, the historic problem cause and resolution data being associated with term(s) and/or phrase(s) related to the product problem description, wherein the product problem description is the parent of the corresponding historic problem cause data, and the historic problem cause data are parents of the corresponding historic problem resolution data". as recited in Applicant's claim 50. At least for similar reasons, Copperman, alone or in combination with any of the references of record, does not teach or suggest "providing … hierarchically structured problem diagnosis data … the problem diagnosis data comprising: a product problem description; a product problem cause that caused the described product problem; and a product problem resolution that resolves the described product problem by fixing the corresponding product problem cause," as recited in Applicant's independent claim 1.

Fratkina was cited for its alleged teaching of a "narrowing symptoms to a cause" (Office Action, page 10). However, Fratkina fails to remedy the deficiencies in Copperman noted above with respect to Applicant's claim 1. For example, Fratkina fails to teach or suggest "providing historic and *hierarchically structured problem diagnosis data* from the set to an end-user for product problem diagnosis, the problem diagnosis data comprising: a *product problem description*; a *product problem cause* that caused the described product problem; and a *product problem resolution* that resolves the described

product problem by fixing the corresponding product problem cause." (emphasis added) as presently recited in Applicant's amended independent claim 1.

Thus, Copperman and Fratkina, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of claim 1. Accordingly, Applicant's independent claim 1 is allowable. Applicant respectfully requests withdrawal of the §103 rejection of claim 1.

Dependent claims 3-8 depend from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim. Applicant respectfully requests withdrawal of the §103 rejection of claims 3-8.

Applicant's **independent claim 9**, as presently presented, recites, "responsive to receiving the search request, systematically presenting to a user of the troubleshooting wizard historical product problem diagnosis data organized by the server computing device *into a hierarchical tree* from structured answer data objects in view of the product problem description … *the historic problem diagnosis data comprising informal communications between an end-user and a product support engineer*" (emphasis added)

Copperman at least fails to teach or suggest "systematically presenting to a user of the troubleshooting wizard historical product problem diagnosis data organized by the server into a hierarchical tree from structured answer data objects in view of the product problem description" as presently recited in Applicant's independent claim 9. This element renders claim 9 allowable for reasons similar to the reasons claim 1 is allowable. In addition, Copperman at least fails to teach or suggest "the historic problem diagnosis

data comprising information that is a result of an end-user and product support engineer product communication processes, which is not based on information solely generated by a professional writer or vendor tasked with documenting a product" because Copperman describes organizing and searching documents prepared by experts (abstract), and Applicant has failed to find any evidence in Copperman of "information that is a result of an end-user and product support engineer product communication processes, which is not based on information solely generated by a professional writer or vendor tasked with documenting a product."

Fratkina was cited for its alleged teaching of a "troubleshooting wizard" (Office Action, page 16). However, Fratkina fails to remedy the deficiencies in Copperman noted above with respect to Applicant's claim 9. For example, Fratkina fails to teach or suggest "systematically presenting to a user of the troubleshooting wizard historical product problem diagnosis data organized by the server into a hierarchical tree from structured answer data objects in view of the product problem description" as presently recited in Applicant's amended independent claim 9. Fratkina also fails to supply "information that is a result of an end-user and product support engineer product communication processes, which is not based on information solely generated by a professional writer or vendor tasked with documenting a product."

Thus, Copperman and Fratkina, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of Applicant's claim 9. Accordingly, claim 9 as amended is allowable. Applicant respectfully requests withdrawal of the §103 rejection of claim 9.

Dependent claims 10-14 depend from independent claim 9 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim. Applicant respectfully requests withdrawal of the §103 rejection of claims 10-14.

Applicant's **independent claim 15**, as presently presented, recites, "providing historic and hierarchically structured problem diagnosis data from the set to an end-user for product problem diagnosis." The rejection is respectfully traversed.

Copperman at least fails to teach or suggest "providing historic and hierarchically structured problem diagnosis data from the set to an end-user for product problem diagnosis" as presently recited in Applicant's independent claim 15. There is no evidence that Copperman teaches or suggests "*providing* historic and hierarchically structured problem diagnosis data from the set to *an end user* for product problem diagnosis," because Copperman explicitly teaches a final result of a "single ordered list of knowledge containers."

Fratkina was cited for its alleged teaching of a "narrowing symptoms to a cause" (Office Action, page 20). However, Fratkina fails to remedy the deficiencies in Copperman noted above with respect to Applicant's claim 15. For example, Fratkina fails to teach or suggest "*providing* historic and hierarchically structured problem diagnosis data from the set to *an end user* for product problem diagnosis" as presently recited in Applicant's independent claim 15.

Thus, Copperman and Fratkina, whether taken alone or in combination (assuming for the sake of argument that they can be combined), fail to teach or suggest the features of claim 15. Accordingly, independent claim 15 is allowable.

Dependent claims 17-22 depend from independent claim 15 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim. Applicant respectfully requests withdrawal of the §103 rejection of claims 17-22.

Applicant's **independent claim 23**, as presently presented, is allowable for reasons similar to the reasons independent claim 9 is allowable. For example, independent claim 23 recites "responsive to receiving a response to the search request, presenting, by the troubleshooting wizard, information from the response to the user, wherein the information is derived from end-user and product support engineer product communication processes, and which is not based on information solely generated by a professional writer or vendor tasked with documenting a product problem, and wherein the information comprises." Accordingly, independent claim 23 is allowable. Applicant respectfully requests withdrawal of the §103 rejection of claim 23.

Dependent claims 24-28 depend from independent claim 23 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim. Applicant respectfully requests withdrawal of the §103 rejection of claims 24-28.

Applicant's independent claim 31, as presently presented, is allowable for reasons similar to the reasons independent claim 1 is allowable. Accordingly, Applicant respectfully requests withdrawal of the §103 rejection of claim 31.

Dependent claims 33-38 depend from independent claim 31 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim. Applicant respectfully requests withdrawal of the §103 rejection of claims 33-38.

Applicant's independent claim 39, as presently presented, is allowable for reasons similar to the reasons independent claim 9 is allowable. Accordingly, Applicant respectfully requests withdrawal of the §103 rejection of claim 39.

Dependent claims 40-44 depend from independent claim 39 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim. Applicant respectfully requests withdrawal of the §103 rejection of claims 40-44.

Applicant's independent claim 45, as presently presented, is allowable for reasons similar to the reasons independent claim 1 is allowable. Accordingly, Applicant respectfully requests withdrawal of the §103 rejection of claim 45.

Dependent claims 47-49 depend from independent claim 45 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim. Applicant respectfully requests withdrawal of the §103 rejection of claims 47-49.

CONCLUSION

For at least the foregoing reasons, claims 1, 3-15, 17-31, 33-45, 47-50, and 52-54 are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance.

Applicant earnestly believed that the claims were in condition for allowance at the time of filing the previous response. Amendments presented in this response merely clarify previously claimed subject matter and present elements of formerly dependent claims in independent claims.

If any issue remains unresolved that would prevent allowance of this case, **Applicant requests that the Examiner contacts the undersigned attorney to resolve the issue**.

Respectfully submitted,
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